

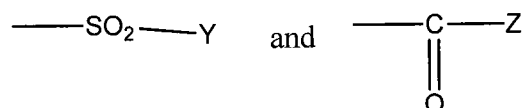
Remarks

I. Status of the Claims

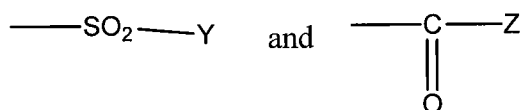
Upon entry of this amendment, claims 1-4, 32, 33 and 34 are pending.

Claims 16-19 have been canceled herein, without prejudice or disclaimer. Claims 5-15 and 20-31 were previously canceled.

New claims 32-34 have been added. New claim 32 depends from claims 1-4 and specifies that the claimed molecular compound is a crystalline clathrate. Support for this amendment can be found in the original specification at p. 278, third paragraph from the bottom ("Particularly crystalline clathrate compounds are more preferred."). New claim 33 is drawn to the closure mechanism according to claim 1, "wherein R₁ and R₅ are the same or different and are selected from the group consisting of halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons,



." New claim 34 is drawn to the closure mechanism according to claim 1, "wherein R₁ and R₅ are the same or different and are selected from the group consisting of



." Support for new claims 33 and 34 can be found throughout the original specification, *e.g.*, pp. 2, 5. Thus, new claims 32-34 add no new matter.

II. Claim rejection under 35 U.S.C. § 103(a)

1. Pending claims 1-4

Claims 1-4 are rejected under 35 U.S.C. § 103(a) as unpatentable over EP 0 706 997 A1 to Saito et al. ("Saito"). The Examiner contends that Saito renders the claims obvious because it teaches the presently claimed phenolic molecular compounds having sulfonyl functional groups substituted on the phenol rings, wherein the present variables X, A, and B, as defined in the present Formulas (II) through (V), are a SO₂ group.

The Examiner asserts that claims 1-4 would be obvious to one of ordinary skill in the art, who would expect that the phenolic compounds taught by Saito contain residual water or solvent from their preparation, which would cause such phenolic compounds to be molecular compounds as recited by the present claims.

In response, the Applicant respectfully points the Examiner to claims 1-4 as amended in Applicant's Amendment submitted June 5, 2009, **in which, importantly, the solvent has been excluded**. Because of this, the Examiner's analysis provided in the April 6, 2009 Final Office Action falls apart because there is no longer residual solvent available that would render the phenolic compounds taught by Saito "molecular compounds" according to claims 1-4.

Instead, the molecular compounds recited in claims 1-4 (as amended on June 5, 2009) are prepared by reacting the phenolic compounds with the organic compounds selected from antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents for coating materials, accelerators for coating materials, resins, adhesives, natural essential oils, antioxidants and vulcanization accelerators.

The invention of Saito relates to thermal sensitive recording medium using a sulfonyl compound. Saito neither teaches nor suggests reacting phenolic compounds with antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents for coating materials, accelerators for coating materials, resins, adhesives, natural essential oils, antioxidants and vulcanization accelerators, and thus does not teach or suggest the organic compounds recited by the amended claims. Therefore, the Applicant re-emphasizes that for at least this reasons, claims 1-4 are not obvious over Saito.

Moreover, the teachings of Saito would not motivate one of ordinary skill in the art at the relevant time (i.e., the time of filing of the present application) to arrive at the present invention. As stated above, the invention of Saito relates to thermal sensitive recording medium using a sulfonyl compound. More specifically, Saito relates to a phenolic compound which is used as a developer (*see* Saito at col. 1, lines 9-17). As such, one of ordinary skill in the art at the relevant time would not be motivated to react the phenolic compound of Saito with organic compounds such as antibacterial agents, antifungal agents, or the like to obtain the claimed molecular compounds, because the claimed molecular compounds would have no use in the application(s) contemplated by Saito. In fact, the instant field of endeavor and the field of endeavor in Saito are non-analogous to the point where there are no teachings that are common to both fields. In this respect, it is important to note that, even after *KSR v. Teleflex* (550 U.S. 398 (2007)), there still must be some motivation for one of ordinary skill in the art to take teachings from art in a field that is entirely different from the field of the invention being examined for patentability, as is the case here, and apply it the claims being examined. In other words, there still must be a reason for one of ordinary skill to combine the non-analogous prior art (i.e., Saito, in this case) with, in the instant case, ordinary skill, in order to reach the claimed invention. *See KSR*, 550 U.S. at 420. In the instant case, there is absolutely no motivation for one of ordinary skill in the art at the relevant time (i.e., the time of filing of the instant patent application) to study Saito in light of the instant pending claims, much less apply the teachings of Saito to obtain the claimed molecular compound. Accordingly, the Applicant respectfully contends that the Examiner's citation of Saito against the pending claims is improper.

At least for these reasons, Applicant respectfully submits that Saito, either alone or in combination with ordinary skill in the art, does not render any one of claims 1-4 obvious. Accordingly, Applicant respectfully requests that the rejections of claims 1-4 be withdrawn.

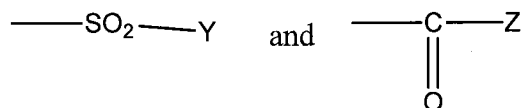
2. New claims 32-34

New claims 32-34 are no more obvious over Saito than claims 1-4.

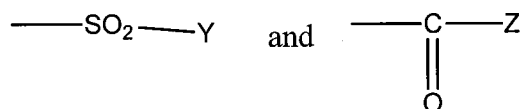
As a first matter, claims 32, 33, and 34 depend from claims 1-4 (claim 32) or from claim 1 (claims 33 and 34), respectively. A dependent claim includes all the limitations of the claim from which it depends (and further limits the claim). Thus, because claims 1-4 are not obvious over Saito, claims 32-34 are not obvious, either.

Moreover, Saito contains no teaching or suggestion whatsoever of a molecular compound that is a crystalline clathrate, as called for in new claim 32.

Regarding claims 33 and 34, the Applicant notes that, importantly, R_1 and R_5 cannot be hydrogen in the claimed molecular compound. Instead, R_1 and R_5 are "selected from the group consisting of halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons,



" in claim 33, and in new claim 34, " R_1 and R_5 are the same or different and are selected from the group consisting of



." Saito does not teach or suggest molecular compounds with any of these R_1 and R_5 side groups according to the instantly claimed invention, as called for in claims 33 and 34.

Thus, for these additional reasons, claims 32-34 are not obvious over Saito.

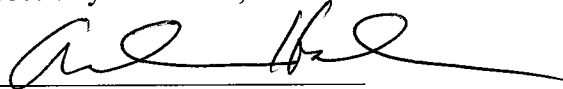
Thus, the Applicant respectfully contends that none of claims 1-4 or 32-34 are obvious over Saito, and respectfully request withdrawal of this rejection.

III. Conclusion

This application is believed to be in condition for allowance, which is earnestly solicited. If the Examiner believes there are further issues that could be advanced by an interview or entry of an Examiner's Amendment, the Examiner is invited to contact the undersigned attorney.

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Respectfully submitted,

By 

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